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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/588,321	08/03/2006	Alain Joseph Jean Garnier	PRD2188USPCT	7212

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EXAMINER

SULLIVAN, DANIELLE D

ART UNIT	PAPER NUMBER
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1616

NOTIFICATION DATE	DELIVERY MODE
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07/22/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/588,321	Applicant(s) GARNIER, ALAIN JOSEPH JEAN	
	Examiner DANIELLE SULLIVAN	Art Unit 1616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 April 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 3-8, 11 and 12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 9, 10, 13 and 14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of Claims

Claims 1, 2, 9, 10, 13 and 14 are pending examination.

Withdrawn rejections

Applicant's amendments and arguments filed 4/23/2010 are acknowledged and have been fully considered. Any rejection and/or objection not specifically addressed below are herein withdrawn.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 9, 10, 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Antoni-Zimmermann et al. (US 2003/0199490).

Applicant's Invention

Applicant claims a composition comprising DDAC (didecyl dimethyl ammonium chloride) and imazalil in a carrier wherein the ratio of DDAC to imazalil is 1:100 to 10:1. Claim 10 specifies the amount of DDAC is in a range from 10 to 1 mg/l and the range of

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imazalil is in a range from 10 to 1 mg/l. Applicant claims a process of preparing the composition by mixing the ingredients with the carrier.

Determination of the scope and the content of the prior art

(MPEP 2141.01)

Antoni-Zimmermann et al. teach synergistic biocidal compositions comprising 2-alkyl isothiazoline-3-one and pyrrhione as a biocidal active ingredient. The active ingredients behave synergistically and are ideally suitable for controlling bacteria, fungus and algae (abstract). Additionally, the biocide composition may comprise one or more other biocidal active ingredients selected as a function of the specific system to be preserved selected from imazalil and didecyldimethylammonium chloride [0054, 0055 and 0075]. The concentration of pyrrhione and 2-alkyl isothiazoline-3-one ranges from 0.1 to 99% based on the entire weight of the composition [0044]. The weight ratio of pyrrhione to 2-alkyl isothiazoline-3-one is from 1:1000 to 1000:1 [0046]. The total concentration of the biocide in the system which is susceptible to microbial attack to be preserved range from 0.01 to 10% of the biocide composition [0096].

Ascertainment of the difference between the prior art and the claims

(MPEP 2141.02)

Antoni-Zimmermann et al. do not exemplify a particular composition comprising imazalil and DDAC. However, the combination of one or more other biocidal active ingredients selected from imazalil and DDAC are taught as additional biocidal active ingredients. Since the claim uses “comprising” language, the inclusion of other ingredients is allowed. Antoni-Zimmermann et al. do not teach that the specific ratio of

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DDAC to imazalil is 1:100 to 10:1 or that the amount of DDAC is in a range from 10 to 1 mg/l and the range of imazalil is in a range from 10 to 1 mg/l. However, Antoni-Zimmermann et al. teach adjusting the ratios of the different biocidal active ingredients in the range of 1:1000 to 1000:1, hence it would have been routine optimization to optimize the concentration of the active ingredients by adjusting the ratio of imazalil to DDAC from 1:100 to 10:1. Furthermore, in view of In re Aller, Lacey, and Hall, 105 USPQ 233 (C.C.P.A. 1955), "change in concentration is not patentable modification, however, such changes may impart patentability to process if ranges claimed produce new and unexpected results". Since Antoni-Zimmerman et al. disclose the invention as being used to prevent fungal attack and only lack in specifying the amounts obtained present claims are prima facie obvious.

Finding of prima facie obviousness

Rationale and Motivation (MPEP 2142-2143)

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the teachings of Antoni-Zimmermann et al. and use a composition comprising imazalil and DDAC. One would have been motivated to combine imazalil and DDAC because Antoni-Zimmermann et al. teach the combination of one or more other biocidal active ingredients selected from imazalil and DDAC. One would have been motivated to manipulate ranges during routine experimentation to discover the optimum or workable range since the prior art provides the general range. Therefore,

one would have been motivated to use the appropriate amount of imazalil and DDAC to achieve the specific ratio of DDAC to imazalil, 1:100 to 10:1.

Response to Arguments

Applicant's arguments filed 4/23/2010 have been fully considered but they are not persuasive.

Applicants first argue that Antoni-Zimmermann teaches imazalil and DDAC among many compounds listed, however nowhere is there a specific "singling out of imazalil and DDAC, let alone the combination specified. The Examiner is not persuaded by this argument because in view of KSR International Co. v. Teleflex Inc., 82 USPQ2d at 1396 (2007), a claimed combination may be obvious to try where there are a finite number of predictable solutions, a person of ordinary skill would have reason to pursue options within his or her technical grasp and it is the product of ordinary skill or common sense. The issue is not whether the two compounds are singled out, rather the issue is if the combination would have been obvious to try. The Examiner believes selecting imazalil and DDAC would have been obvious to one of ordinary skill when selecting biocidally active ingredients.

Applicants finally argue that there is no data or examples in Antoni-Zimmermann that a combination of DDAC and imazalil has a synergistic effect and that the lack of data and examples cannot make the present invention obvious. The Examiner agrees that Antoni-Zimmermann fails to show data and examples of the combination of DDAC and imazalil, however the issue is whether one of ordinary skill in the art would have been motivated to combine the two compounds. Since it is obvious to combine two

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compounds which are biocidally active to form a third composition that is to be used for the very same purpose in view of In re Kerkhoven 205 USPQ 1069, (C.C.P.A. 1980).

However, demonstrating unexpected results is necessary in order to establish patentability.

Comparative Data

The specification provides unexpected results for DDAC in combination with imazalil at the following ratios, 2:1, 1:5 and 1:50, however the claims recite the range of 1:100 to 10:1. Therefore, the showing is not commensurate in scope with the claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Danielle Sullivan whose telephone number is (571) 270-3285. The examiner can normally be reached on 7:30 AM - 5:00 PM Mon-Thur EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on (571) 272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Danielle Sullivan
Patent Examiner
Art Unit 1616

/Johann R. Richter/
Supervisory Patent Examiner, Art Unit 1616